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 JPO Abstracts Database  
 EPO Abstracts Database  
 Derwent World Patents Index  
 IBM Technical Disclosure Bulletins

**Term:**

VP1 with rotavi\$

**Display:**

10

**Documents in Display Format:**

-

**Starting with Number**

1

**Generate:**☐

Hit List

☒

Hit Count

☐

Side by Side

☐

Image

Search

Clear

Help

Logout

Interrupt

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Show S Numbers

Edit S Numbers

Preferences

Cases

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side by side

**Hit Count Set Name**

result set

*DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ*L7 L6 and l3

13

L7L6 VP1 with rotavi\$

37

L6L5 L4 and l3

3

L5L4 rotavi\$ VP1

5

L4*DB=USPT; PLUR=YES; OP=ADJ*L3 microparticle or polymer or microsphere or nanoparticle

383540

L3L2 6270795

1

L2*DB=USPT,PGPB,JPAB,EPAB; PLUR=YES; OP=ADJ*L1 sox-9 with (therap\$ or treat\$)

5

L1**END OF SEARCH HISTORY**

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L2: Entry 1 of 2

File: USPT

Nov 13, 2001

US-PAT-NO: 6316597

DOCUMENT-IDENTIFIER: US 6316597 B1

TITLE: Sox-9 gene and protein and use in the regeneration of bone or cartilage

DATE-ISSUED: November 13, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Koopman; Peter Anthony	Torwood			AU
Goodfellow; Peter Neville	London			GB

US-CL-CURRENT: 530/350; 530/388.21, 536/23.1, 536/23.5, 536/24.31

## CLAIMS:

What is claimed is:

1. An isolated protein encoded by a DNA sequence as set forth in SEQ ID NO: 18.
2. An isolated protein encoded by a DNA sequence as set forth in SEQ ID NO: 20.
3. An isolated protein comprising an amino acid sequence as set forth in SEQ ID NO: 19.
4. An isolated protein comprising an amino acid sequence as set forth in SEQ ID NO: 21.
5. An isolated SOX-9 protein comprising an amino acid sequence having about 93.5% to about 100% identity to SEQ ID NO: 19.
6. An isolated SOX-9 protein comprising an amino acid sequence having about 93.5% to about 100% identity to SEQ ID NO: 21.

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L7: Entry 9 of 13

File: USPT

Feb 9, 1999

DOCUMENT-IDENTIFIER: US 5869050 A

TITLE: Methods of blocking T-cell activation using anti-B7 monoclonal antibodies

Detailed Description Text (24):

Before administration to patients, formulants may be added to the antibodies. A liquid formulation is preferred. For example, these formulants may include oils, polymers, vitamins, carbohydrates, amino acids, salts, buffers, albumin, surfactants, or bulking agents. Preferably carbohydrates include sugar or sugar alcohols such as mono, di, or polysaccharides, or water soluble glucans. The saccharides or glucans can include fructose, dextrose, lactose, glucose, mannose, sorbose, xylose, maltose, sucrose, dextran, pullulan, dextrin, alpha and beta cyclodextrin, soluble starch, hydroxethyl starch and carboxymethylcellulose, or mixtures thereof. Sucrose is most preferred. "Sugar alcohol" is defined as a C.sub.4 to C.sub.8 hydrocarbon having an --OH group and includes galactitol, inositol, mannitol, xylitol, sorbitol, glycerol, and arabitol. Mannitol is most preferred. These sugars or sugar alcohols mentioned above may be used individually or in combination. There is no fixed limit to amount used as long as the sugar or sugar alcohol is soluble in the aqueous preparation. Preferably, the sugar or sugar alcohol concentration is between 1.0 w/v % and 7.0 w/v %, more preferable between 2.0 and 6.0 w/v %. Preferably amino acids include levorotary (L) forms of carnitine, arginine, and betaine; however, other amino acids may be added. Preferred polymers include polyvinylpyrrolidone (PVP) with an average molecular weight between 2,000 and 3,000, or polyethylene glycol (PEG) with an average molecular weight between 3,000 and 5,000. It is also preferred to use a buffer in the composition to minimize pH changes in the solution before lyophilization or after reconstitution. Most any physiological buffer may be used, but citrate, phosphate, succinate, and glutamate buffers or mixtures thereof are preferred. Most preferred is a citrate buffer. Preferably, the concentration is from 0.01 to 0.3 molar. Surfactants that can be added to the formulation are shown in EP Nos. 270,799 and 268,110.

Detailed Description Text (25):

Additionally, antibodies can be chemically modified by covalent conjugation to a polymer to increase its circulating half-life, for example. Preferred polymers, and methods to attach them to peptides, are shown in U.S. Pat. Nos. 4,766,106; 4,179,337; 4,495,285; and 4,609,546 which are all hereby incorporated by reference in their entireties. Preferred polymers are polyoxyethylated polyols and polyethylene glycol (PEG). PEG is soluble in water at room temperature and has the general formula:  $R(O-CH_2-CH_2)_nO-R$  where R can be hydrogen, or a protective group such as an alkyl or alkanol group. Preferably, the protective group has between 1 and 8 carbons, more preferably it is methyl. The symbol n is a positive integer, preferably between 1 and 1,000, more preferably between 2 and 500. The PEG has a preferred average molecular weight between 1000 and 40,000, more preferably between 2000 and 20,000, most preferably between 3,000 and 12,000. Preferably, PEG has at least one hydroxy group, more preferably it is a terminal hydroxy group. It is this hydroxy group which is preferably activated to react with a free amino group on the inhibitor. However, it will be understood that the type and amount of the reactive groups may be varied to achieve a covalently conjugated PEG/antibody of the present invention.

Other Reference Publication (14):

Dharakul, et al., Immunization with Baculovirus-Expressed Recombinant Rotavirus Proteins VP1, VP4, VP6, and VP7 Induces CD8<sup>sup</sup>+ T Lymphocytes that Mediate Clearance of Chronic Rotavirus Infection in SCID Mice, J. Virol., 65(11:5928-5932 (Nov., 1991).

Other Reference Publication (33):

Knauf, et al., Relationship of Effective Molecular Size to Systemic Clearance in Rats of Recombinant Interleukin-2 Chemically Modified with Water-soluble Polymers, J. Bio.

Chem., 263 (29) :15064-15070 (Oct. 15, 1988).